

ABSTRACT

Compositions, methods of using the compositions, and solid freeform fabrication (SFF) systems for producing three-dimensional objects are disclosed. One exemplary composition, among others, includes a basic
5 component, an acidic component, at least one monoacrylate component, a light sensitive initiator, and a polar binder. A polymerization reaction between the at least one monoacrylate component and the light sensitive initiator occurs upon exposure to optical energy. The polar binder includes a viscosity modifier and a surface tension modifier. The polar binder is capable of stimulating a
10 crosslinking reaction between the basic component and the acidic component.